AMENDMENTS

Please amend the application as indicated hereafter.

In the Claims

a) please cancel claims 1-22 without prejudice, waiver, or disclaimer.

b) please add the following new claims:

Sub C1

23- (New) A method for passing information to a post-compile-time software application, comprising:

compiling a plurality of blocks of code;

finding one or more unused bits in an instruction in one of the plurality of blocks of code that are compiled; and

using the one or more unused bits to pass information to the post-compile-time software application.

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24- (New) The method of claim 23, wherein the information identifies whether certain registers are live.

25- (New) The method of claim 23, wherein the post-compile-time software application comprises a dynamic optimizer.

26- (New) The method of claim 23, wherein the instruction is a no-operation (NOP) instruction.

27- (New) The method of claim 23, further comprising:

using the information by the post-compile-time software application to determine whether certain registers are live.

28- (New) The method of claim 23, wherein the information is encoded as a bit vector.

29- (New) The method of claim 23, wherein using the one or more unused bits to pass information to the post-compile-time software application comprises:

determining which of a plurality of registers are live in said one of the plurality of blocks of code;

creating within the instruction a register-usage bit-vector having a plurality of register-usage bits; and

setting one of the plurality of register-usage bits for each one of the plurality of registers that are live.

30- (New) A system comprising:

a compiler that is configured to compile a plurality of blocks of code; and

a code annotator that is configured to find one or more unused bits in an instruction in one of the plurality of blocks of code that are compiled by the compiler, and to encode information in the one or more unused bits;

wherein the information is configured to be used by a post-compile-time software application.

31- (New) The system of claim 30, wherein the information identifies whether certain registers in said one of the plurality of blocks of code are live.

32- (New) The system of claim 30, wherein the post-compile-time software application comprises a dynamic optimizer.

33- (New) The system of claim 30, wherein the instruction is a no-operation (NOP) instruction.

34- (New) The system of claim 30, wherein the post-compile-time software application is configured to use the information to determine whether certain registers are live.

35- (New) The system of claim 30, wherein the information is encoded as a bit vector.

36- (New) A system comprising:

means for compiling a plurality of blocks of code;
means for finding one or more unused bits in an instruction in one of the plurality of blocks of code that are compiled by the means for compiling; and
means for using the one or more unused bits to pass information to a post-compile-time software application.

37- (New) The system of claim 36, wherein the information identifies whether certain registers are live.

•38- (New) The system of claim 36, wherein the post-compile-time software application comprises a dynamic optimizer.

39- (New) The system of claim 36, wherein the instruction is a no-operation (NOP) instruction.

40- (New) A method comprising:

compiling a plurality of blocks of code;
finding one or more unused bits in an instruction in one of a plurality of blocks of code that are compiled;
encoding information in the one or more unused bits; and
using the information by a post-compile-time software application.

41- (New) The method of claim 40, wherein the information identifies whether certain registers are live.

42- (New) The method of claim 40, wherein the post-compile-time software application comprises a dynamic optimizer.

43- (New) The method of claim 40, wherein the instruction is a no-operation (NOP) instruction.

44- (New) The method of claim 40, further comprising:

using the information by the post-compile-time software application to determine whether certain registers are live.

45- (New) The method of claim 40, wherein the information is encoded as a bit vector.